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THE OCEANOGRAPHIC ENVIRONMENTAL REFERENCE SERVICE RETRIEVAL PRO--ETC(U)
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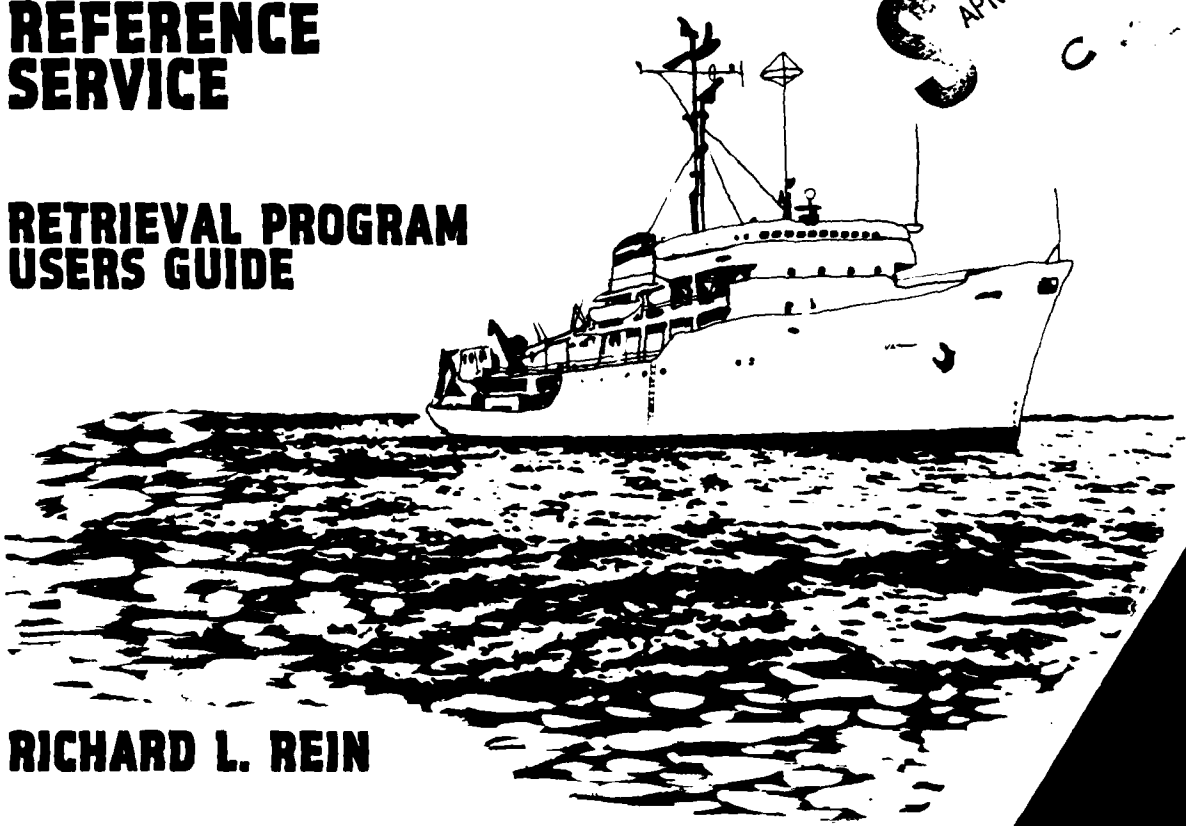
THE OCEANOGRAPHIC ENVIRONMENTAL REFERENCE SERVICE

RETRIEVAL PROGRAM USERS GUIDE



RICHARD L. REIN

FEBRUARY 1981

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PREPARED BY
COMMANDING OFFICER,
NAVAL OCEANOGRAPHIC OFFICE
NSTL STATION, BAY ST. LOUIS, MS 39522

PREPARED FOR
COMMANDER
NAVAL OCEANOGRAPHY COMMAND
NSTL STATION, BAY ST. LOUIS, MS 39529

FOREWORD

The Naval Oceanographic Office is developing an Oceanographic Management Information System to support the Commander Naval Oceanography Command in the administration of the Naval Oceanography Program. The Oceanographic Environmental Reference Service (OERS) is that subset which identifies environmental data collection efforts and the associated data holdings. The value of this service lies in the ability to identify the existence of all the data within the Navy oceanographic community. Planning, operations, and products can all benefit from the easy access to the on-line information. User feedback is encouraged because of its value in planning future enhancements to OERS.

W.C. PALMER
Captain, USN
Commanding Officer

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER NOO-RP-31	2. GOVT ACCESSION NO. AD-A097340	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) The Oceanographic Environmental Reference Service Retrieval Program Users Guide		5. TYPE OF REPORT & PERIOD COVERED Final 6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) Richard L. Rein		8. CONTRACT OR GRANT NUMBER(s)
9. PERFORMING ORGANIZATION NAME AND ADDRESS Naval Oceanographic Office NSTL Station Bay St. Louis, MS 39522		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS Naval Oceanographic Office NSTL Station Bay St. Louis, MS 39522		12. REPORT DATE February 1981 13. NUMBER OF PAGES 32
14. MONITORING AGENCY NAME & ADDRESS(if different from Controlling Office)		15. SECURITY CLASS. (of this report) Unclassified 15a. DECLASSIFICATION/DOWNGRADING SCHEDULE

16. DISTRIBUTION STATEMENT (of this Report)

Approved for public release; distribution unlimited

17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)

18. SUPPLEMENTARY NOTES

19. KEY WORDS (Continue on reverse side if necessary and identify by block number)

Data Inventory
Data Index
Data Base
Oceanographic Data
Environmental Data

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

Detailed instructions are presented for the retrieval of information from the Oceanographic Environmental Reference Service Data Base, which is accessed by the use of an interactive program. The data base is designed to serve as an inventory of oceanographic data collection efforts and an index to the data collected. Information available on cruises includes cruise number, platform name, sponsoring organization, dates, areas covered

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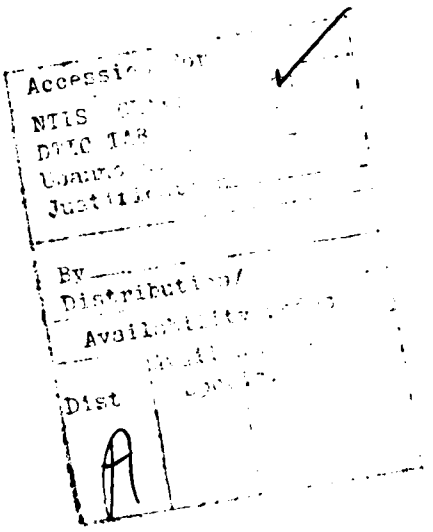
and scientist in charge. Data descriptions include position, depth of sample, sampling rate, quantity, measuring device, and points of contact for data retrieval. The data base can be accessed by cruise, data type, WMO area identifier, and world water body. Prompting statements guide the user in the selection of query responses for information retrieval.



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APPENDIX

1. Introduction

1.1. The Oceanographic Environmental Reference Service (OERS) is a subset of the Oceanographic Management Information System. The data base of the OERS serves as an index to Navy oceanographic data. It contains inventories of data collection efforts (e.g. oceanographic cruises, airborne acoustic studies, biological study stations) and the types of data associated with each effort. Also included is information concerning who collected it, how much was collected, where was it collected, how is it stored, and who is the proper point of contact to retrieve the data.

1.2. The OERS data base also inventories reduced and reformatted data files to provide a researcher with the number of observations within each file for each 10-degree WMO (World Meteorological Organization) area. Some of the files included are for ocean stations, surface currents, mechanical bathythermographs (BT's), expendable bathythermographs (XBT's), SV/STD casts, and current meter observations.

1.3. The OERS is intended to serve a dual purpose: first as a system to provide information to managers and planners and second as a referral system for those who wish to access or retrieve data. In order that a wide spectrum of users would be able to access the data base independently, an interactive retrieval program (OERS-RET) is provided to allow the formulation of queries by providing answers to programmed prompts.

2. The Interactive Retrieval Program

2.1. Starting the Retrieval

After signing on the NAVOCEANO U-1108 "B" system computer, (see Appendix D) the user initiates the retrieval program by typing in:

```
>@ADD,L OMIS*OERS.RETRIEVE
```

This element will assign all pertinent files and begin program execution. The first question asked is:

```
DO YOU WISH NARRATIVE INFORMATION? (Y OR N)
>Y
```

Answering "Y" produces the following narrative on OERS:

```
    THE OCEANOGRAPHIC ENVIRONMENTAL REFERENCE SERVICE
IS DESIGNED TO SERVE AS AN INVENTORY OF OCEANOGRAPHIC
SURVEYS AND AS AN INDEX TO THE DATA COLLECTED.
INFORMATION AVAILABLE ON CRUISES INCLUDES:
CRUISE NUMBER, PLATFORM NAME, SPONSORING
ORGANIZATION, DATES, AREAS COVERED, AND SCIENTIST
IN CHARGE.  DESCRIPTIONS OF THE DATA INCLUDE:
POSITION, HEIGHT OR DEPTH OF SAMPLE, QUANTITY,
SAMPLING RATE, RECORDING FORMAT AND AN INDICATION
OF SAMPLE QUALITY, CLASSIFICATION, MEASURING
DEVICE, STATUS OF PROCESSING, AND POINTS OF
CONTACT FOR DATA RETRIEVAL.

    FOUR METHODS OF ACCESSING THE DATA BASE ARE
AVAILABLE TO USERS:
      1. CRUISE (BY CRUISE NO. & PLATFORM NAME)
      2. DATA TYPE (ENTER CODE FROM USER GUIDE)
      3. WMO AREA IDENTIFIER
      4. WORLD WATER BODY (ENTER CODE FROM USER GUIDE)

PROMPTING QUESTIONS WILL GUIDE THE USER IN
FORMULATING A QUERY TO RETRIEVE INFORMATION
ABOUT HIS AREA OF INTEREST.
```

The next question is:

```
ARE YOU VERY FAMILIAR WITH THIS PROGRAM? (Y OR N)
>N
```

An answer of "Y" provides short questions throughout the remainder of the program because it presupposes that the user knows the format of the questions and the range of prompted responses. For the purpose of fully explaining the interactive retrieval program, we shall assume an "N" answer has been given. The first prompt then appears:

```
THE INDEX CODES ARE:
A = SPECIFIC WMO SQUARE(S)
C = SPECIFIC CRUISE
D = SPECIFIC DATA TYPE (FROM USER GUIDE)
W = SPECIFIC WATER BODY (CODE FROM USER GUIDE)

NOTE:
T WILL TERMINATE THE PROGRAM
* WILL CAUSE RETURN TO PREVIOUS QUESTION LEVEL


CHOOSE DESIRED ENTRY TYPE
>
```

Depending upon the user's requirements and knowledge of what he is seeking, one of the entry types is selected and the program continues.

2.2. General Instructions

2.2.1. Using Output Interrupts

Appendix E explains how to generate interrupts from various terminals and how to recover from the interrupts. This information is very useful when it is necessary to stop scrolling (output rolling off the top of the screen) on a UNISCOPE or other video terminal and to terminate lengthy ouptput on either a video terminal or hard-copy terminal.

2.2.2. Use of "*"

If, at any time during a query session, a wrong response is entered but not detected until the next question appears, the user may "back up" in the program by entering an asterisk (*) in place of the current response. This will cause a return to the previous question level. If desired, the "*" response may be used successively until the user has returned to the beginning of the program.

2.2.3. WMO Area Identifiers

The area designation scheme used in the OERS is adopted from the World Meteorological Organization. It allows the identification of 10-degree squares by using a 4-digit code based solely on latitude and longitude. This scheme obviates the need for a reference chart in most instances. Appendix A explains how the 4-digit identifier is constructed, as well as showing a WMO world reference chart.

2.2.4. Cruise Status

Cruise status indicates whether a cruise is yet to be undertaken or has already been completed. This feature allows for coordination of future data collection efforts by survey planners. Most researchers will be interested only in existing data and would therefore select completed cruises.

2.2.5. Specifying Date Ranges

When entry is by area or data type, the user has the opportunity to refine his query by specifying a date range in one of three ways: (1) all data, (2) seasonal, (3) from-to range. By answering with a null response (pressing transmit key without typing any input characters) the date range verification will be bypassed, giving all data that meets the remaining criteria of the query. The seasonal specification is input as "YY/YY,MMDD/MMDD". The YY/YY specifies the range of years to be searched followed by a comma and MMDD/MMDD. This allows the user to specify the seasonal span by including the beginning and ending dates by month and day. The last choice is merely expressing a date range in the form: YYMMDD,YYMMDD.

2.2.6. Specifying Data Types

Another choice that arises in all types of retrieval is specifying the data type or types. Whenever this prompt appears the user has several choices. As before, a null response bypasses data type verification and gives all data types which meet the remainder of the query specifications. Another response choice is to type in an "L" which will provide a list of the data type codes available for this particular query. Upon making a choice, the user may then enter one or more data type codes or data group codes. Multiple selections are to be delineated by slashes in the following manner: B27/G25/M. This particular entry would locate all references to deep scattering layer (B27), seismic reflection (G25), and the entire meteorology group (M).

2.3. Retrieval Instructions

Beginning with "A" or area entry type, each of the entry types will be explained.

2.3.1. "A" - Area Entry Option (Specific WMO Square)

Returning to the last prompt provided by the program, the user enters an "A" to enter the data base by the area option.

```
CHOOSE DESIRED ENTRY TYPE
>A
```

The next prompt allows selection of cruise status:

```
INDICATE STATUS OF CRUISES TO BE RETRIEVED
     C = COMPLETED CRUISES ONLY
     P = PLANNED CRUISES ONLY
     B = BOTH PLANNED AND COMPLETED CRUISES
>C
```

Now the specific area or areas will be prompted:

```
TO WHICH WMO AREA(S) DO YOU WISH ACCESS?
>5202/5203/5302/5303
```

As in other instances, the selection of multiple WMO areas should be delineated by slashes. For example: 5202/5203/5302/5303. After area selection comes the date prompt:

```
ENTER (1) SPECIFIC TIME PERIODS DESIRED OVER A SELECTED
SPAN OF YEARS, OR (2) A CONTINUOUS TIME FRAME
...NULL RESPONSE (TRANSMIT) = ALL DATA

YY/YY,MMDD/MMDD ... OR YYMMDD,YYMMDD
>
```

The date selection should be entered as explained in paragraph 2.2.5. The program then displays the selection and provides a chance to change the choice.

```
IS THIS THE REQUESTED RANGE? (N=NO)
     -ALL YEARS STORED-
>
```

In this example a null response has been entered in answer to the date check. If the user wishes to change the selection, typing in "N" will cause the date prompt to reappear and allow entry of the appropriate date range. To accept the date selection, transmit either a null response or a "Y".

Now, although the area entry is in effect, the user may narrow his query further by selecting one or several data types or receive the entire contents by giving a null response (see paragraph 2.2.6.).

```
KEY IN DESIRED DATA TYPE(S)/GROUP(S)
'L' = LIST OF DATA TYPES COLLECTED IN AREA
FORMAT FOR INDIVIDUAL DATA TYPES:  ANN (E.G., B25)
       FOR DATA GROUPS:  AA
>L
```

In this example a list will be output of data types available within each WMO area of the query. After the list is completed, the above prompt will reappear asking for the user selection. Upon data type selection the query input is completed. The data base is then searched and information is listed under a heading for each WMO area. Duplication will occur if the same reference is associated with more than one of the areas selected.

When the output from the query is finished, the user is prompted for another query by the reappearance of this message:

```
CHOOSE DESIRED ENTRY TYPE
>C
```

2.3.2. "C" - Cruise Entry Option

When the prompt appears asking for the entry type, the user may terminate the program by entering a "T". In the example above a "C" has been entered to present an example of a cruise entry. The first prompt that appears requires input of the two keys necessary to locate a particular cruise record: cruise-id and platform name. Cruise identifiers are used as provided by the performing group.

```
KEY IN THE DESIRED CRUISE IDENTIFIER,
FOLLOWED BY SHIP/PLATFORM NAME
XXXXXXXXXX/YYYYYYYYYYYYYYYYYYYY
>343901/WILKES
```

This response specifies cruise "343901" aboard the "WILKES". Please note the slash used as a delineator. If the cruise is not found in the data base the following response will appear:

```
>1492/SANTA MARIA

########################################
CRUISE ID AS ENTERED (1492      / SANTA MARIA          ) NOT FOUND
########################################

KEY IN THE DESIRED CRUISE IDENTIFIER,
FOLLOWED BY SHIP/PLATFORM NAME
XXXXXXXXXX/YYYYYYYYYYYYYYYYYYYY
>
```

If the record is found with the keys provided by the user, the program continues.

```
DO YOU WISH TO SEE COMMENTS ABOUT THE CRUI.    (Y=YES)
>Y
```

An answer of "Y" prints the comment records. An "N" or null response elicits the next prompt:

```
DO YOU WISH CRUISE INFORMATION? (Y=YES)
>Y
```

An affirmative answer here provides the following output:

```
**********************************************
**********************************************
   CRUISE/PLATFORM:        343901/WILKES
PROJECT ID:                INDIAN OCEAN

DATE RANGE:                08 JAN 79  THRU  24 FEB 79
SPONSOR:                   NAVOCEANO
CRUISE STATUS:             COMPLETED
PLATFORM TYPE:             RESEARCH/SURVEY SHIP
OCEAN AREA:                INDIAN OCEAN
                           LACCADIVE SEA
                           BAY OF BENGAL
                           ANDAMAN SEA
MARINE ZONES:              OPEN SEA (OCEAN)
SCIENTIST IN CHARGE:       LITTLE, LUTHER
SCIENTIST'S ORG. & CODE:   NAVOCEANO & 7220
SCIENTIST'S ADDRESS:       NSTL STATION
SCIENTIST'S CITY,STATE:    BAY ST. LOUIS, MS. 39522

**********************************************
**********************************************
```

```
DO YOU WISH CRUISE DATA? (Y=YES)
>Y
```

At this point you may choose to look at the information on the data collected during the cruise or answer "N" and be prompted for another query. The "Y" response causes the data type prompt to appear for which this example replies with an "L" for a list of the data types available from this cruise.

```
KEY IN DESIRED DATA TYPE(S)/GROUP(S)
NULL (TRANSMIT) = ALL, 'L' = LIST OF DATA COLLECTED ON CRUISE
FORMAT FOR INDIVIDUAL DATA TYPES:  ANN (E.G., B25)
       FOR DATA GROUPS:  AA
>L
```

```
**********************************************
**********************************************
DATA TYPES GATHERED ON CRUISE: 343901    ,WILKES
  ......................................

     H10: VERTICAL PROFILES (STD/CTD)
     G04: CORE - SOFT BOTTOM
     H15: ACOUSTIC STATIONS
     H13: BATHYTHERMOGRAPH - EXPENDABLE
     G25: SEISMIC REFLECTION
     G81: 3.5 KHZ BATHYMETRY
     H01: CONTINUOUS TEMPERATURE RECORDING
     G28: MAGNETISM
     G23: BATHYMETRY - NARROW BEAM
**********************************************
**********************************************
```

```
KEY IN DESIRED DATA TYPE(S)/GROUP(S)
NULL (TRANSMIT) = ALL, 'L' = LIST OF DATA COLLECTED ON CRUISE
FORMAT FOR INDIVIDUAL DATA TYPES:  ANN (E.G., B25)
       FOR DATA GROUPS:  AA
>G25
```

After reviewing the list of data types, the seismic reflection data is selected for further information output. The result follows:

```
**********************************************
**********************************************

CRUISE NUMBER: 343901    FOR PLATFORM: WILKES

  ......................................

   DATA TYPE:           G25:SEISMIC REFLECTION
   DATE OF CRUISE:      08 JAN 79  THRU  24 FEB 79
   MEASURING DEVICE:    SPARKER
   DATA COLLECTED FOR:  6345 TOTAL MILES

   CLASSIFICATION:      UNCLASSIFIED
   STORAGE MEDIA:       GRAPH RECORDING
   STATUS OF DATA:      COLLECTED, UNPROCESSED ON 24 FEB 79
   POINT OF CONTACT:    KEVILLE BART F
   POC PHONE:           601-688-4058
        FTS NO.:        494-4058
        AUTOVON:        485-4058
   POC ORG. & CODE:     NAVOCEANO & 7220
   POC SITE:            NSTL STATION
   POC ADDR:            BAY ST. LOUIS, MS. 39522

**********************************************
**********************************************
```

No summary is available from the data base for this cruise which shows the breakdown for the data type into each WMO 10-degree square. Had such a summary been available, it would appear immediately after the above information. When the data type information has been output, the system prompts for another query.

```
CHOOSE DESIRED ENTRY TYPE
>D
```

2.3.3. "D" - Data Type Entry Option

A selection is now made to retrieve by data type by entering a "D". As with the entry by area, the next prompt allows a selection of information according to status of the data collection activity.

```
INDICATE STATUS OF CRUISES TO BE RETRIEVED
     C = COMPLETED CRUISES ONLY
     P = PLANNED CRUISES ONLY
     B = BOTH PLANNED AND COMPLETED CRUISES
>C
```

When this selection has been entered, the prompt for data type appears. Proper responses are (1) single data type code, (2) single data group code, (3) multiple codes delineated by slashes, or (4) an "L" which will begin a "menu" output of the data types which exist in the data base. This example will use the "L" option.

```
KEY IN DESIRED DATA TYPE(S)/GROUP(S)
'L' = LIST OF DATA TYPES
FORMAT FOR INDIVIDUAL DATA TYPES:  ANN (E.G., B25)
       FOR DATA GROUPS:  AA
>L


      ----------------------------------
OT = OTHER DATA TYPES (NEW OR NOT CLASSIFIED)
N  = POSITION (NAVIGATION)
P  = POLLUTION
M  = METEOROLOGY
HC = WATER COLUMN: CHEMICAL
HP = WATER COLUMN: PHYSICAL
HB = WATER COLUMN: NEAR SEA FLOOR
HS = WATER COLUMN: SURFACE
GS = GEOLOGY: TYPES OF STUDIES
GU = GEOLOGY: MEASUREMENTS UNDERWAY
GL = GEOLOGY: MEASUREMENTS AT SPECIFIC LOCATION
D  = DYNAMICS
BS = BIOLOGY: TYPES OF STUDY
B  = BIOLOGY
      ----------------------------------

KEY IN CODE FOR MAJOR DATA TYPE CATEGORY.
>GU
```

Assume that the user is interested in seismic data but does not know the specific data type code. A study of the above menu shows that geology measurements taken while underway are stored under the group code "GU". Entering "GU" displays the next menu:

```
      ---------------------------------
G29 = COASTAL SURVEYS
G81 = 3.5 KHZ BATHYMETRY
G80 = OTHER MEASUREMENTS
G30 = BATHYMETRY - ARRAY SONAR
G28 = MAGNETISM
G27 = GRAVIMETRY
G26 = SEISMIC REFRACTION
G25 = SEISMIC REFLECTION
G24 = SIDE SCAN SONAR
G23 = BATHYMETRY - NARROW BEAM
G22 = BATHYMETRY - WIDE BEAM
G21 = MOTION PICTURE OF SEA FLOOR
      ---------------------------------

KEY IN DESIRED DATA TYPE(S)/GROUP(S)
'L' = LIST OF DATA TYPES
FORMAT FOR INDIVIDUAL DATA TYPES:  ANN (E.G., B25)
       FOR DATA GROUPS:  AA
>G25
```

This menu shows two entries for seismic information. Being knowledgeable on the subject, the user determines that the reflection data is what he wants. The code "G25" is entered and the program proceeds to the next prompt. If the user cannot find what he is looking for in the current menu, an "L" response will bring back the first menu and allow a different selection to be made.

```
ENTER (1) SPECIFIC TIME PERIODS DESIRED OVER A SELECTED
SPAN OF YEARS, OR (2) A CONTINUOUS TIME FRAME
...NULL RESPONSE (TRANSMIT) = ALL DATA

YY/YY,MMDD/MMDD ... OR YYMMDD,YYMMDD
>
```

A null response is given to indicate no date selection and the program responds with a prompt which allows the user to verify his date selection.

```
IS THIS THE REQUESTED RANGE? (N=NO)
     -ALL YEARS STORED-
>
```

Answering "N" to the question will cycle the program through the date selection again. A null response verifies that the echoed input is the desired date range. The next prompt allows the query to be refined by specifying one or more WMO 10-degree areas. A null response will produce output listings for all the information in the data base for the data type or types being searched. As this could produce a rather lengthy output, it is wise to limit the search to as small an area as practicable.

```
YOU MAY LIMIT THE SEARCH TO A FEW OCEAN AREAS...(NULL GIVES ALL AREAS)
TO WHICH WMO AREA(S) DO YOU WISH ACCESS?
?7107
```

This user wants information from a portion of the Carribbean Sea. The resultant search produces no hits, giving the following output:

```
**************************************************
**************************************************
NO INFO FOR G25, WMO-AREA 7107
      -ALL YEARS STORED-
**************************************************
**************************************************
```

```
CHOOSE DESIRED ENTRY TYPE
?W
```

2.3.4. "W" - Water Body Entry Option

This option allows the user to identify his area of interest according to precisely defined water body areas. The standard for the water body delineation is Defense Intelligence Agency Manual No. 65-18 titled "Geopolitical Data Elements and Related Features". Appendix D contains an alphabetical listing of the standard water body names and their corresponding 2-character "water body code".

Entry by water body is selected by entering a "W" in answer to the "CHOOSE DESIRED ENTRY TYPE" prompt. The next prompt allows the user to specify the status of the data collection activities.

```
INDICATE STATUS OF CRUISES TO BE RETRIEVED
     C = COMPLETED CRUISES ONLY
     P = PLANNED CRUISES ONLY
     B = BOTH PLANNED AND COMPLETED CRUISES
```

The prompt for water body code then appears. A single water body code or several codes separated by slashes may be entered.

```
TO WHICH WATER BODY(IES) DO YOU WISH ACCESS?
>6A
```

This example shows the code for the Indian Ocean (6A). Because of the potentially large number of records available by this entry type, the next prompt provides for the selection of three formats for output of the information. The cruise information format provides the basic cruise information plus a listing of the types of data collected during the cruise. A later example will show this format. The data type format allows further selection of one or more data types to be summarized. The following example shows one entry for narrow beam bathymetry in the Indian Ocean.

```
**************************************************
**************************************************

CRUISE NUMBER: 343916     FOR PLATFORM: WILKES

OCEAN AREA:                INDIAN OCEAN
                           ARABIAN SEA
  ........................................

   DATA TYPE:           G23:BATHYMETRY - NARROW BEAM
   DATE OF CRUISE:      16 AUG 79  THRU  03 OCT 79
   MEASURING DEVICE:    ***UNKNOWN
   DATA COLLECTED FOR:  6519 TOTAL MILES
   CLASSIFICATION:      UNCLASSIFIED
   STORAGE MEDIA:       DIGITAL RECORDING ON MAG TAPE
                        GRAPH RECORDING
   STATUS OF DATA:      PROCESSING COMPLETED ON 00 NOV 79
   POINT OF CONTACT:    MARCHANT FRANK L
   POC PHONE:           601-688-4070
```

```
        FTS NO.:        494-4070
        AUTOVON:        485-4070
   POC ORG. & CODE:     NAVOCEANO & 8131
   POC SITE:            NSTL STATION
   POC ADDR:            BAY ST. LOUIS, MS. 39522
      ---------------------------------
       WMO AREAS GATHERED:   3005    MILES:   788
                             1105    MILES:   638
                             1005    MILES:  4691
                             1004    MILES:   400
       DATA QUALITY:         GOOD DATA

**************************************************
**************************************************
```

The third format selection is a combination of the other two and will give the most lengthy output. For this example the "CRUISE INFORMATION ONLY" is selected.

```
TO REQUEST CRUISE/DATA INFORMATION ENTER:
     C = CRUISE INFORMATION ONLY
     D = DATA TYPE INFORMATION ONLY
     B = BOTH CRUISE AND DATA TYPE INFO
>C
```

The time period prompt appears next for which this example asks for those cruises between March 1, 1979, and May 30, 1979.

```
ENTER (1) SPECIFIC TIME PERIODS DESIRED OVER A SELECTED
SPAN OF YEARS, OR (2) A CONTINUOUS TIME FRAME
...NULL RESPONSE (TRANSMIT) = ALL DATA

YY/YY,MMDD/MMDD ... OR YYMMDD,YYMMDD
>790301,790530
```

The user is then asked for verification of the date selection, for which a "Y" is entered as a positive reply.

```
IS THIS THE REQUESTED RANGE? (N=NO)
      01 MAR 79  THRU  30 MAY 79
 Y
```

The final prompt allows the user to specify one or more data types. If you wish to see all data types collected on the cruises, answer with a null reply as in this example.

```
KEY IN DESIRED DATA TYPE(S)/GROUP(S)
FORMAT FOR INDIVIDUAL DATA TYPES:  ANN (E.G., B25)
       FOR DATA GROUPS:  AA
>



**********************************************
**********************************************
INFO FROM WORLD WATER BODIES REQUESTED
OCEAN AREA:                INDIAN OCEAN
**********************************************
**********************************************
   CRUISE/PLATFORM:        343908/WILKES
PROJECT ID:                INDIAN OCEAN
DATE RANGE:                06 MAY 79  THRU  07 JUL 79
SPONSOR:                   NAVOCEANO
CRUISE STATUS:             COMPLETED
PLATFORM TYPE:             RESEARCH/SURVEY SHIP
OCEAN AREA:                INDIAN OCEAN
                           LACCADIVE SEA
MARINE ZONES:              OPEN SEA (OCEAN)
SCIENTIST IN CHARGE:       ACKER, CLEMENT J
SCIENTIST'S ORG. & CODE:   NAVOCEANO & 7230
SCIENTIST'S ADDRESS:       NSTL STATION
SCIENTIST'S CITY,STATE:    BAY ST. LOUIS, MS. 39522
DATA TYPES GATHERED:
     H10: VERTICAL PROFILES (STD/CTD)
     G04: CORE - SOFT BOTTOM
     H15: ACOUSTIC STATIONS
     H13: BATHYTHERMOGRAPH - EXPENDABLE
     G25: SEISMIC REFLECTION
     G81: 3.5 KHZ BATHYMETRY
     H01: CONTINUOUS TEMPERATURE RECORDING
     G28: MAGNETISM
     G23: BATHYMETRY - NARROW BEAM
**********************************************
**********************************************



CHOOSE DESIRED ENTRY TYPE
>T
```

2.4. Retrieval and Run Termination

The program prompts for another query. When no further queries are desired, proper exit from the program is accomplished by entering a "T", whereupon the program responds by printing the word "TERMINATION".

The command to disconnect from the computer is "@FIN". Accounting information will be output followed by "*TERMINAL INACTIVE*". The line is then disconnected.

A. Appendix A

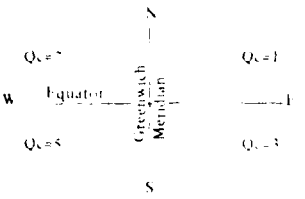
10-DEGREE SQUARE IDENTIFIER CODE

A 10-degree square area can be easily identified by constructing a four-digit number. The components of this number, in order of their construction, are described as follows:

Quadrant - A one-digit number identifies the quadrant of the world with the following significance to each digit:

1st digit = Quadrant code (Qc)

Qc	Latitude	Longitude
1	North	East
3	South	East
5	South	West
7	North	West

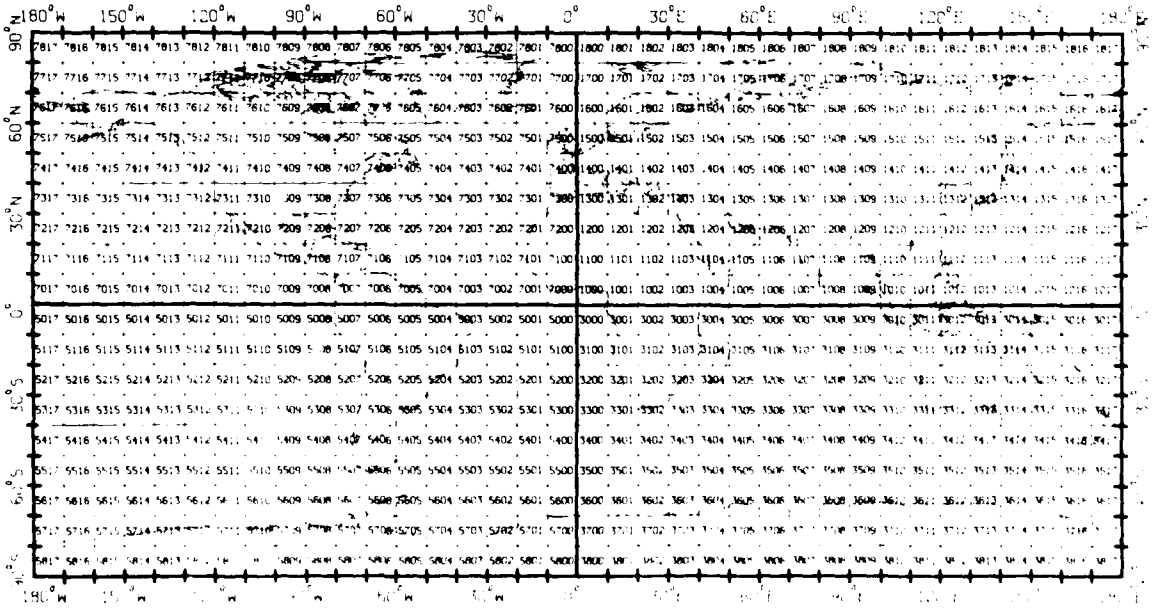


10-Degree Square - The next three digits identify a unique 10-degree square; thus, the significant digits consist of:

2nd digit = Tens digit of degrees latitude
3rd digit = Hundreds digit of degrees longitude
4th digit = Tens digit of degrees longitude

Examples:		10-DEGREE SQ IDENT. CODE			
		Qc	Lat	Long	Long
(i)	37 degrees 48' S, 4 degrees 13' E	3	3	0	0
(ii)	21.6 degrees S, 14.3 degrees W	5	2	0	1
(iii)	34 degrees 28' N, 143 degrees 27' W	7	3	1	4

INDEX OF 10-DEGREE SQUARE IDENTIFIERS



B. Appendix B - Environmental Data Codes for OERS Data Base

B.1. MAJOR OERS DATA CATEGORIES

CODE	DATA GROUP
B	BIOLOGY
BS	BIOLOGY: TYPES OF STUDY
D	DYNAMICS
GL	GEOLOGY: MEASUREMENTS AT SPECIFIC LOCATION
GS	GEOLOGY: TYPES OF STUDIES
GU	GEOLOGY: MEASUREMENTS UNDERWAY
HB	WATER COLUMN: NEAR SEA FLOOR
HC	WATER COLUMN: CHEMICAL
HP	WATER COLUMN: PHYSICAL
HS	WATER COLUMN: SURFACE
M	METEOROLOGY
N	POSITION (NAVIGATION)
OT	OTHER DATA TYPES (NEW OR NOT CLASSIFIED)
P	POLLUTION

B.2.

BIOLOGY
DATA TYPE CODES

CODE	DATA TYPE
B01	PRIMARY PRODUCTIVITY
B02	PHYTOPLANKTON PIGMENTS
B03	SESTON
B04	PARTICULATE ORGANIC CARBON
B05	PARTICULATE ORGANIC NITROGEN
B06	DISSOLVED ORGANIC MATTER
B07	BACTERIAL AND PELAGIC MICRO-ORGANISMS
B08	PHYTOPLANKTON
B09	ZOOPLANKTON
B10	NEUSTON
B11	NEKTON
B12	INVERTEBRATE NEKTON
B13	PELAGIC EGGS AND LARVAE
B14	PELAGIC FISH
B15	AMPHIBIANS
B16	BENTHIC BACTERIA AND MICRO-ORGANISMS
B17	PHYTOBENTHOS
B18	ZOOBENTHOS
B19	COMMERCIAL DEMERSAL FISH
B20	COMMERCIAL BENTHIC MOLLUSCS
B21	COMMERCIAL BENTHIC CRUSTACEA
B22	ATTACHED PLANTS AND ALGAE
B23	INTERTIDAL ORGANISMS
B24	BORERS AND FOULERS
B25	BIRDS
B26	MAMMALS AND REPTILES
B27	DEEP SCATTERING LAYERS
B28	ACOUSTICAL REFLECTIONS ON MARINE ORGANISMS
B29	BIOLOGIC SOUNDS
B30	BIOLUMINENSENCE
B31	VITAMIN CONCENTRATIONS
B32	AMINO ACID CONCENTRATION
B33	HYDROCARBON CONCENTRATIONS
B34	LIPID CONCENTRATIONS
B35	ATP-ADP-AMP- CONCENTRATIONS
B36	DNA-RNA CONCENTRATIONS
B37	TAGGINGS
B80	OTHER MEASUREMENTS

B.3. BIOLOGY: TYPES OF STUDIES
DATA TYPE CODES

CODE	DATA TYPE
B51	IDENTIFICATION
B52	SPATIAL AND TEMPORAL DISTRIBUTION
B53	MONITORING AND SURVEILLANCE
B54	BIOMASS
B55	DESCRIPTION OF COMMUNITIES
B56	FOOD CHAINS ENERGY TRANSFERS
B57	POPULATION AND ENVIRONMENTS
B58	POPULATION STRUCTURES
B59	TAXONOMY, SYSTEMATICS, CLASSIFICATION
B60	PHYSIOLOGY
B61	BEHAVIOR
B62	PATHOLOGY, PARASITOLOGY
B63	TOXICOLOGY
B64	GEAR RESEARCH
B65	EXPLORATORY FISHING
B66	COMMERCIAL FISHING
B67	AQUACULTURE
B90	OTHER MEASUREMENTS

B.4. DYNAMICS
DATA TYPE CODES

CODE	DATA TYPE
D01	CURRENT METERS (NO. OF STATIONS)
D02	CURRENT METER (DURATION OF MEAS. - DAYS)
D03	CURRENTS MEASURED FROM SHIP DRIFT
D04	GEK
D05	DRIFTERS
D06	SWALLOW FLOATS
D07	DRIFT CARDS
D08	BOTTOM DRIFTERS
D09	TIDAL OBSERVATION
D10	SEA AND SWELL
D11	SURFACE CURRENTS
D90	OTHER MEASUREMENTS

B.5. GEOLOGY: MEASUREMENTS AT SPECIFIC LOCATION
DATA TYPE CODES

CODE	DATA TYPE
G01	DREDGE
G02	GRAB
G03	CORE - ROCK
G04	CORE - SOFT BOTTOM
G05	SAMPLING BY DIVERS
G06	SAMPLING BY SUBMERSIBLE
G07	DRILLING
G08	BOTTOM PHOTOGRAPHY
G09	SEA FLOOR TEMPERATURE (1 MR FROM BOTTOM)
G10	ACOUSTICAL PROPERTIES OF THE SEA FLOOR
G11	ENGINEERING PROPERTIES OF THE SEA FLOOR
G12	MAGNETIC PROPERTIES OF THE SEA FLOOR
G13	GRAVIMETRIC PROPERTIES OF THE SEA FLOOR
G14	RADIOACTIVITY MEASUREMENTS
G70	OTHER MEASUREMENTS

B.6. GEOLOGY: TYPES OF STUDIES
DATA TYPE CODES

CODE	DATA TYPE
G31	PHYSICAL ANALYSIS OF SEDIMENTS
G32	CHEMICAL ANALYSIS OF SEDIMENTS
G33	PALEOTHERMY
G34	PALEOMAGNETISM AND ROCK MAGNETISM
G35	PALEONTOLOGY
G36	GEOTHERMY
G37	GEOCHRONOLOGY
G38	MINERAL AND FOSSIL RESOURCES
G39	LITTORAL ZONE STUDIES
G40	HARBOR STUDIES
G90	OTHER MEASUREMENTS

B.7. GEOLOGY: MEASUREMENTS UNDERWAY
DATA TYPE CODES

CODE	DATA TYPE
G21	MOTION PICTURE OF SEA FLOOR
G22	BATHYMETRY - WIDE BEAM
G23	BATHYMETRY - NARROW BEAM
G24	SIDE SCAN SONAR
G25	SEISMIC REFLECTION
G26	SEISMIC REFRACTION
G27	GRAVIMETRY
G28	MAGNETISM
G29	COASTAL SURVEYS
G30	BATHYMETRY - ARRAY SONAR
G80	OTHER MEASUREMENTS
G81	3.5 KHZ BATHYMETRY

B.8. WATER COLUMN: NEAR SEA FLOOR
DATA TYPE CODES

CODE	DATA TYPE
H05	CONTINUOUS TEMPERATURE RECORDING
H06	CONTINUOUS SALINITY RECORDING
H07	DISCRETE TEMPERATURE MEASUREMENTS
H08	DISCRETE SALINITY MEASUREMENTS

B.9. WATER COLUMN: CHEMICAL
DATA TYPE CODES

CODE	DATA TYPE
H21	OXYGEN
H22	PHOSPHATES
H23	TOTAL-P
H24	NITRATES
H25	NITRITES
H26	SILICATES
H27	ALKALINITY
H28	PH
H29	CHLORINITY
H30	TRACE ELEMENTS
H31	RADIOACTIVITY
H32	ISOTOPES
H33	DISSOLVED GASES
H90	OTHER MEASUREMENTS

B.10. WATER COLUMN: PHYSICAL
DATA TYPE CODES

CODE	DATA TYPE
H09	CLASSICAL OCEANOGRAPHIC STATIONS
H10	VERTICAL PROFILES (STD/CTD)
H11	SUB-SURFACE MEASUREMENTS UNDERWAY
H12	MECHANICAL BATHYTHERMOGRAPHS
H13	BATHYTHERMOGRAPH - EXPENDABLE
H14	SOUND VELOCITY STATIONS
H15	ACOUSTIC STATIONS
H16	TRANSPARENCY
H17	OPTICS
H18	DIFFUSION (DYNAMIC)
H80	OTHER MEASUREMENTS

B.11. WATER COLUMN: SURFACE
DATA TYPE CODES

CODE	DATA TYPE
H01	CONTINUOUS TEMPERATURE RECORDING
H02	CONTINUOUS SALINITY RECORDING
H03	DISCRETE TEMPERATURE MEASUREMENTS
H04	DISCRETE SALINITY MEASUREMENTS

B.12. METEOROLOGY
DATA TYPE CODES

CODE	DATA TYPE
M01	UPPER AIR OBSERVATIONS
M02	INCIDENT RADIATION
M03	AIR-SEA INTERFACE STUDIES
M04	ICE OBSERVATIONS
M05	OCCASIONAL STANDARD MEASUREMENTS
M06	SYSTEMATIC STANDARD MEASUREMENTS
M07	SURFACE MARINE OBSERVATIONS
M90	OTHER MEASUREMENTS

B.13. POSITION (NAVIGATION)
DATA TYPE CODES

CODE	DATA TYPE
N01	MARINE NAVIGATION
N02	AIR NAVIGATION
N03	LAND POSITIONING

B.14.

POLLUTION
DATA TYPE CODES

CODE	DATA TYPE
P01	SUSPENDED SOLIDS
P02	HEAVY METALS
P03	PETROLEUM RESIDUES
P04	CHLORINATED HYDROCARBONS
P05	OTHER DISSOLVED SUBSTANCES
P06	THERMAL POLLUTION
P07	WASTE WATER - BOD
P08	WASTE WATER - NITRATES
P09	WASTE WATER - MICROBIOLOGY
P10	WASTE WATER - OTHER
P11	DISCOLORED WATER
P12	BOTTOM DEPOSITS
P13	CONTAMINATED ORGANISMS
P90	OTHER MEASUREMENTS

C. Appendix C - Water Bodies of the World

8D-Adriatic Sea
8G-Aegean Sea
8Y-Alboran Sea
4D-Amundsen Sea
5Y-Anadyrskiy Zaliv
6N-Andaman Sea
6R-Arabian Sea
4U-Arafura Sea
8R-Aral Sea
5A-Arctic Ocean
1P-Baffin Bay
8J-Balearic Sea
4L-Bali Sea
7B-Baltic Sea
4B-Banda Sea
5B-Barents Sea
6F-Bass Strait
6B-Bay of Bengal
1B-Bay of Biscay
1F-Bay of Fundy
5U Beaufort Sea
4G-Bellingshausen Sea
5D-Bering Sea
5R-Bering Strait
4K-Bismarck Sea
8B-Black Sea
8P-Bosporus
1C-Bristol Channel
1X-Caribbean Sea
8C-Caspian Sea
3C-Celebes Sea
4Q-Ceram Sea
5C-Chukchi Sea
5E-Coastal Waters of Southeast Alaska and British Columbia
4C-Coral Sea
8U-Dardanelles
1V-Davis Strait
1D-Denmark Strait
2D-Drake Passage
3E-East China Sea
5S-East Siberian Sea
1E-English Channel
4F-Flores Sea
3F-Formosa Strait
2J-Golfo San Jorge
2M-Golfo San Matias
6G-Great Australian Bight
5G-Greenland Sea
6D-Gulf of Aden
5F-Gulf of Alaska
6Q-Gulf of Aquaba
7T-Gulf of Bothnia
3L-Gulf of California
4P-Gulf of Carpentaria
7F-Gulf of Finland
1G-Gulf of Guinea
8X-Gulf of Lion
1M-Gulf of Mexico
6M-Gulf of Oman
7H-Gulf of Riga
1T-Gulf of St. Lawrence
6W-Gulf of Suez
3T-Gulf of Thailand
3G-Gulf of Tonkin
3H-Halmahera Sea
1H-Hudson Bay
1U-Hudson Strait
6A-Indian Ocean
3N-Inland Sea
1K-Inner Seas
8N-Ionian Sea
1R-Irish Sea
4J-Java Sea
5K-Kara Sea
7K-Kattegat
3R-Korea Bay
1L-Labrador Sea
6L-Laccadive Sea
9E-Lake Erie
9H-Lake Huron
9M-Lake Michigan
9N-Lake Ontario
9S-Lake Superior
5P-Laptev Sea
8L-Ligurian Sea
5L-Lincoln Sea
3I-Luzon Strait

Water Bodies of the World
(Continued)

4M-Makassar Strait
8E-Mediterranean, Eastern
8W-Mediterranean, Western
3M-Molucca Sea
6Z-Mozambique Channel
1A-North Atlantic Ocean
3A-North Pacific Ocean
1N-North Sea
5T-Northwest Passage
5N-Norwegian Sea
1J-Panama Canal
6P-Persian Gulf
3P-Philippine Sea
3X-Po Hai
6E-Red Sea
2R-Rio de la Plata
4R-Ross Sea
3B-Sakhalinskiy Zaliv
6S-Savu Sea
2S-Scotia Sea
8Z-Sea of Azov
3J-Sea of Japan
8M-Sea of Marmara
3Q-Sea of Okhotsk
3Z-Singapore Strait
1S-Skagerrak
4S-Solomon Sea
2A-South Atlantic Ocean
3U-South China Sea
4A-South Pacific Ocean
8S-Strait of Gibraltar
6C-Strait of Malacca
1Q-St. Georges Channel
9L-St. Lawrence Seaway
6U-Suez Canal
3S-Sulu Sea
4T-Tasman Sea
3D-Tatar Strait
4E-Teluk Bone
3V-Teluk Tomini
6T-Timor Sea
8T-Tyrrhenian Sea
2W-Weddell Sea
5W-White Sea
3Y-Yellow Sea
3K-Zaliv Shelikhova

D. Appendix D - Logging on the Computer

D.1. Logging on the Computer

User interaction with the computer requires that the terminal be 'connected' or 'logged on' to the computer. Methods of connection vary with the terminal type.

Some terminals require that the user dial the computer for connection. For these, special switch settings are necessary. Other terminals are directly connected to the computer. Log on is more simple for these.

D.2. Dial-up Terminals.

1. Switch Settings
   - A. Power: ON
   - B. Transmission rate: 300 bps
   - C. Parity: NONE
   - D. Character set: ALT, CAPS LOCK, etc. to make all letters upper case

2. Connection Process
   - A. Dial the number of the computer and wait for the tone. The phone should ring no more than twice before being automatically answered. A tone should then be heard. If the line is busy or if a recording indicates that all circuits are in use, try again later. If there is no answer, dial ext 4452 for a recorded message which describes the system status.

   - B. After receiving the tone,
     1. Place the phone in the accompanying acoustic coupler (look for a note on the coupler as to the placement of the phone mouthpiece), or
     2. If no coupler is used, press the DATA button on the terminal or phone and return the receiver to the phone cradle.

   - C. Type in the site or terminal ID, provided by the OMIS staff. The computer should then respond with a request for USERID/PASSWORD, followed by a mask to cover the characters to be entered. This entry is also to be provided by the OMIS staff.

```
SITEID
ENTER USERID/PASSWORD:
>XXXXXXXXXXX   (mask to cover password)
```

```
*DESTROY USERID/PASSWORD ENTRY
*UNIVAC 1100 OPERATING SYSTEM  VER. 33R2

RUN NUMBER 5

LAST RUN AT: 070280 082123
DATE: 070280        TIME: 122743
                    (you may enter OMIS subsystem)
```

D. If the output to the terminal is as shown above, the user is ready to access an OMIS subsystem. Otherwise, the output should appear as:

```
SITEID
ENTER USERID/PASSWORD:
 XXXXXXXXXXX   (mask to cover password)

*DESTROY USERID/PASSWORD ENTRY
*UNIVAC 1100 OPERATING SYSTEM  VER. 33R2
                          (enter @run entry here)
```

In this case an @RUN entry is required.

Now input the @RUN entry in the format:

```
@RUN EUXXXX,HHHHHH999999/8888,QQQ
```

where XXXX = some identifier (e.g., OMIS)
HHHHHH = an account no. from OMIS staff
999999 = an account code from OMIS staff
8888 = a number matching the USERID
QQQ = a qualifier, from OMIS staff

D.3. Directly Connected Terminals (UNISCOPE 100 & UNISCOPE 200)

1. Turn on power- if no blinking 'cursor' appears in the upper left hand corner of the screen, be sure that the switch on the right underside of the terminal is pushed away from you.
2. Be sure that the poll light is blinking (U200) or that the MESSAGE INCOMPL light is blinking (U100).
3. If the light is blinking, the computer is ready to accept the terminal ID. Press the 'SOE' key, then enter the terminal ID.
4. The computer should request USERID/PASSWORD (no mask). From this point proceed as in divisions 2.C and 2.D of instructions for DIAL-UP terminals.

E. Appendix E - Interacting with the Computer

E.1. Interacting with the Computer

Program requests for user input are normally preceeded by an explanation of what type of data is desired. The actual request for data entry is marked by a 'prompt' character at the left hand side of the next line. The prompt character used varies with the type of terminal.

A ' ' symbol is the character used by typewriter terminals, as well as some video terminals. Uniscope U100 and U200 terminals use a small triangle, referred to on the keyboard as 'SOE' (Start Of Entry).

An entry can be thought of as characters sent to the computer by pressing the TRANSMIT key (typewriter terminals RETURN). Entries should not be started before the prompt appears! Such premature input can result in either the message 'WAIT LAST INPUT IGNORED' or the entry of unwanted characters.

It is important that the use of the 'SOE' by the Uniscope terminals be understood. When the transmit key is hit, characters will be transmitted from the flashing cursor (marking current user position on the screen) to the previous 'SOE' character. Even if the last 'SOE' appears on the previous line, TRANSMISSION WILL START FROM THAT 'SOE'!!! If a user inputs and/or transmits before the system provides the prompt, the result may be an undesirable entry.

There are several minor exceptions to the 'rule' concerning prompting. Assume that a prompt has appeared requesting input. The operating system or a computer operator may send a message to the terminal, such as the ones below:

```
*TIMEOUT WARNING*        (from operating system)
*TB* A/C PROBLEMS. PLZ SIGN OFF. (from an operator)
```

These outputs did not come from the executing program, but were generated by an outside source. After the message the user is taken to the next line, ...but NO PROMPT APPEARS!!! Input, however is still being expected. At this point caution should be exercised by U100 and U200 users. THEY MUST SUPPLY AN 'SOE' CHARACTER BEFORE ATTEMPTING ANY INPUT!!! Characters may then be entered and transmitted.

E.2. Interruption of Program Output

If one wishes to stop the output coming to the terminal, he need only press the 'MESSAGE WAITING', 'BREAK', or 'INTRPT' key (depending on the terminal). The message 'OUTPUT INTERRUPT' is sent to the terminal. This pause allows the user to read the screen contents of the Uniscope before it scrolls off. To request that output be continued, enter '@@CONT'. Any other entry will be taken as a response to the next question... and will cause trouble!!! Remember, U100 and U200 users must first type the 'SOE' character.

Should one wish to skip the rest of the output and proceed to the next question asked, he may enter '@@X 0'. Caution: the output detailing the question will also be suppressed, and only a prompt character will appear at the terminal. Input is expected at this point. If the user is familiar enough with the program, he may proceed carefully. He could also enter '<' to back up to the previous question. This can become tricky! Remember, the U100's and the U200's require the 'SOE' before the '@@X 0'.

E.3. Terminations

There are several ways in which user programs can cease execution. The most desirable method is to enter the termination characters described by the executing program. Normal termination should then occur. After the executing program terminates, the user may enter '@FIN' to 'sign off' the terminal.

Possible methods of undesirable termination include:

1) SYSTEM CRASH (computer dies),
2) TIME OUT (the user fails to transmit data within a set time),
3) INTERNAL ERROR (the executing program terminates because of its own error, providing the user with an error message),
4) IMPROPER INPUT (unless program documentation indicates otherwise, do not enter '<').

While types 1 and 4 cause the effects of a session to be lost, user timeout and system crashes are the most damaging to a database. For this reason the user should avoid long pauses during update sessions. If such pauses are necessary, the executing program should be 'normally' terminated, releasing the database.

If, at any time, one receives the message 'DATA IGNORED IN CONTROL MODE', the retrieval program is no longer executing. '<' must again be entered if continued execution is desired.

Distribution List

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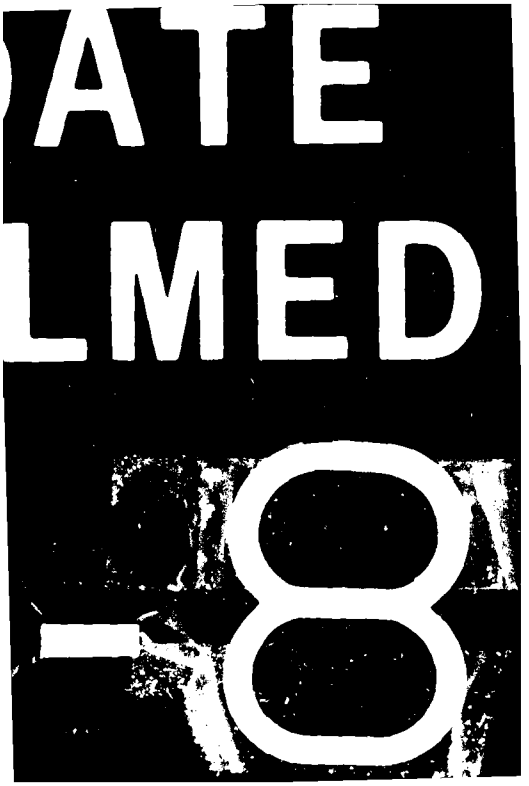
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8